



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE JOURNAL OF POLITICAL ECONOMY

DECEMBER—1896.

THE SHIPPING TRADE BETWEEN THE UNITED STATES AND THE UNITED KINGDOM.

As in the great waters of the sea there flow manifold currents, there are in the thoroughfares of the commercial world a great number of streams carrying with them passengers and goods, flowing from land to land, from continent to continent, connecting the countries separated by the seas. Amongst these shipping currents there is none equal to the magnificent current which flows between the United States of America and Great Britain. The shipping trade between these countries forms the most important link between the old and the new world, carrying every year hundreds of thousands of passengers, and goods to the value of hundreds of millions, over the great waters. The largest and fastest steamers together with numerous sailing vessels are engaged in that trade, and in no other carrying trade is a larger amount of capital and of labor employed. Let us consider some figures illustrating the importance of this trade.

According to the official statistics of the navigation of the United States during the year ending June 1894, the total tonnage of vessels entered from ports in Great Britain and Ireland was 5,547,861 register-tons. From Germany was entered in the same year only 1,491,531 tons, from the Netherlands, Belgium, and France, 573,000, 518,000 and 500,000 tons respectively; from

Europe, in all, 9,668,000 tons, of which the figure representing the trade with the United Kingdom will be seen to make 57.4 per cent.

Among the different foreign countries belonging to the American continent, the Dominion of Canada and the Island of Cuba present the largest figures, viz., 5,175,158 and 1,583,638 tons, respectively. But the tonnage represented by the first of these figures consists chiefly of vessels employed in very short voyages, which, of course, are not of equal importance with the Atlantic commerce.

The other continents fall very far short in this comparison, the total for Asia being represented by only 446,318 tons, Africa by 230,592 tons, and Oceanica by 377,082 tons.

Turning to the clearances, the proportions between the different countries are very similar to those of the arrivals. The tonnage cleared from the United States to the whole of Europe was 10,741,041, of which 6,222,875 tons, or 58 per cent. went to Great Britain and Ireland.

Also for the United Kingdom the navigation here considered is more important than the navigation with any other country. The aggregate tonnage of entrances from, and clearances to, the United States in 1894 was, according to the tables of the board of trade, as much as 10,542,516 tons. It is true that the same tables show for the trade with France a tonnage not much short of this, viz., 9,564,898 tons; but taking into consideration the distances, and calculating for this purpose the approximate number of ton-miles done by the vessels engaged in these trades, we have found that the navigation of the United Kingdom with the United States represented about 44.3 millions of ton-miles, while that with France only represented 4.6 millions; that is to say, the first named trade represents more than nine times as many ton-miles as the second. Next to the United States in importance for the navigation of Great Britain and Ireland stood, not France, but Russia, with about ten millions of ton-miles, while Germany in this respect was about even with France.

Having now accounted for the tonnage both from the Ameri-

can and the British standpoint, we will consider the values carried over the Atlantic Ocean.

The total exports of merchandise from the United States to the United Kingdom reached, in the year ending June 30, 1894, the enormous amount of 431 millions of dollars, not including an export of gold and silver to the amount of 50 millions. In the same year the imports from the United Kingdom amounted to only 107.4 millions of merchandise and 31.6 millions of gold, making a total of 139 millions. The total value of the interchange between the United States and the United Kingdom was thus in 1894 no less than 620 millions of dollars, an amount which may be safely said greatly to exceed the value of the interchange between any other two countries in the world, the figures approaching nearest thereto being those of the interchange of the United Kingdom with France and Germany, which are computed in the tables of the board of trade for 1894 at 62 and 56 millions of pounds sterling, respectively, while that with the United States was computed at more than 120 millions.

Of very large dimensions is also the passenger movement between the United Kingdom and the United States. The average number of emigrants and passengers sailing from ports in the United Kingdom to ports in the United States was 218,680 yearly, during the period 1890-1894, while the corresponding figure for Germany was 186,266.

As to the passengers leaving seaports in the United States and destined for the United Kingdom, the American statistics for the year ending June 30, 1894, show an aggregate of 112,893, not including the passengers traveling by the Hamburg Steam Ship Packet Company or the North German Lloyds to Southampton and Hamburg or Bremen, of whom probably a considerable number land at Southampton.

Having now sketched the statistical outlines of this important current of shipping, I shall in the following pages endeavor to analyze in a more detailed manner its characteristic features at the present time, as well as its development.

The American ports, which are most important as regards the shipping trade with the United Kingdom, range as follows:

(1) New York, (2) Boston, (3) Philadelphia, (4) Baltimore, (5) New Orleans, and (6) San Francisco.

During the three years ending June 30, 1892, 1893 and 1894 the total tonnage of vessels entered and cleared in the trade with the United Kingdom shows the following average per year:

New York,	-	-	-	-	-	-	-	4,725,825 tons
Boston,	-	-	-	-	-	-	-	1,636,849 "
Philadelphia,	-	-	-	-	-	-	-	1,051,985 "
Baltimore,	-	-	-	-	-	-	-	830,176 "
New Orleans,	-	-	-	-	-	-	-	767,806 "
San Francisco,	-	-	-	-	-	-	-	533,827 "

The tonnage was about equally divided between entrances and clearances except for San Francisco, where the tonnage entered from the United Kingdom is usually much less than the tonnage cleared; thus in the year ending June 30, 1894, there were 175,226 tons inward, and 316,517 tons outward.

As to the minor ports, the most prominent in the same trade are (1) Newport News, Virginia, (2) Galveston, Texas, (3) Pensacola, Florida, and (4) Portland and Falmouth, Maine, all four ranging in 1894 from 288,000 to 230,000 tons, if the entrances and clearances are added together. Of other ports, Savannah, Georgia, Brunswick, Georgia, Mobile, Alabama, and Willamette, Oregon, exceeded 100,000 tons.

Dividing the seaports of the United States in the following three great divisions: (1) Atlantic ports, (2) Gulf ports, and (3) Pacific ports, we find that to the first named division fall 80.4 per cent. of the total shipping trade with the United Kingdom, while the Gulf ports are represented by 13.3 per cent. and the Pacific ports by 6.3 per cent. A similar investigation for the year ending June 30, 1888, gives the proportions of 79.1 12 and 8.9 per cent. respectively.

The geographical centers in this trade are as follows:

1. On the Atlantic coast: New York, or perhaps rather a point a little south of this port, as Boston and the ports of Maine

do not draw the balance quite so much to the north as Philadelphia, Baltimore and the rest of the Atlantic ports do to the south.

2. On the Gulf: New Orleans, the ports of Florida, Alabama, and Mississippi in the east being nearly balanced by the somewhat more remote ports in Texas.
3. On the Pacific: A point a little north of San Francisco, taking into account the somewhat considerable shipping trade of the ports of Oregon and of Puget Sound.

On crossing the Atlantic we meet first and foremost with Liverpool as the most prominent port of the United Kingdom for this trade; then, at a considerable distance behind, London, then again Glasgow, Southampton, Hull, Bristol and others, the average figures for the triennial period 1892-94 being as follows:

Liverpool,	-	-	-	4,810,475	tons entered and cleared.		
London,	-	-	-	2,003,793	"	"	"
Glasgow,	-	-	-	838,127	"	"	"
Hull,	-	-	-	450,321	"	"	"
Southampton (1893-4),	-			443,983	"	"	"
Bristol,	-	-	-	355,638	"	"	"

Thus Liverpool occupies in this respect a position similar to that of New York, while London is somewhat ahead of Boston, and Glasgow is short of Philadelphia but about equal with Baltimore. Before the opening of the American line, Southampton was of comparatively small importance for the trade with the United States, the total tonnage of entrances and clearances in this trade being, in 1892, only 80,347.

The geographical center in the shipping trade of the United Kingdom with the United States is on the west coast, a little to the north of Liverpool, on the east coast a little north of London, and on the south coast at Southampton. Between two-thirds and three-fourths of the whole trade falls on the west coast.

As to the trade with the Pacific ports of the United States, the principal ports are Liverpool (141,079 tons entered and cleared during the year 1894), Hull (95,076 tons), and London (62,739 tons), the total for the United Kingdom being 560,342 tons.

If we inquire which sorts of produce form the principal objects of commerce between the two countries, we find that the most important items of export from the United States to the United Kingdom are : (1) Cotton, (2) animals, meat products, (3) breadstuffs. The total annual value of these three chief articles amounted, during the five years ending June 30, 1894, to 351.7 millions of dollars, or nearly 80 per cent. of the total export of domestic merchandise to the United Kingdom.

Of this amount cotton represented 136.6 millions, animals and provisions 115 millions, and breadstuffs 100 millions.

Speaking of shipping, however, it must be observed that the relative importance of the different articles does not so much depend upon the value as on the bulk or the weight.

From this point of view breadstuffs are more important than any other article. If we reckon the average cargo of a ship loaded with corn or wheat at fifty-one bushels per register-ton, and of a ship loaded with wheat flour at seventeen barrels per ton, the average export of these articles ¹ to the United Kingdom during the three years ending June 30, 1895, would represent 2,122,000 register-tons,² while cotton (1.481 million pounds), at a rate of 1650 pounds to one register-ton, represented, in the same years, only 898,000 register-tons.

As to animals, exact figures cannot be given, but the following rough estimate will perhaps give an approximate idea :

	Average export to U. K.	Unit per reg.-ton	Computed tonnage
Cattle (head), - -	310,600	$\frac{2}{3}$ (?)	465,900 (?)
Sheep " - -	138,600	3 (?)	46,200 (?)
Meat products (1000 lbs.)	287,100	3.3	87,000
Hog products "	595,200	3.3	180,400
Dairy products "	63,600	3.3	19,300
Total, - - - - -	- - - - -	- - - - -	798,800

Apart from the articles enumerated there are others which in respect to shipping are of prominent importance. Thus, in the

¹ Viz., corn 19.8 million bushels, wheat 59.3 million bushels, and wheat flour 9.7 million barrels.

² If to this amount is added the tonnage occupied by the exported barley, oats, peas, and oatmeal, we get a total of 2,226,000 register-tons.

first place, mineral oils, amounting in the three years here considered to 272 millions of gallons on the average, and for each of the last two years to more than 300 millions, corresponding, perhaps, to nearly one million register-tons. Another very important article of shipping is wood and timber. According to the tables of the English Board of Trade¹ this article showed during the years 1892-1894 an average of 544,800 loads, or 190,000 to 200,000 register-tons, or, including furniture woods and hardwoods, nearly 250,000 register-tons. In this connection we may also mention the export of oil cake and oil-cake meal, representing yearly 350,000 tons or more than 120,000 register-tons. About the same tonnage was occupied by the export of fertilizers. Tobacco, which ranks high in value, did not occupy more than 30,000 to 35,000 register-tons.

The imports from the United Kingdom to the United States are much under the exports, both in value and in bulk. The value of all articles imported from the United Kingdom amounted during the last three years to only 150 million dollars as against 413 millions exported to the United Kingdom. A very important part of the imports consists of textile manufactures, representing in value between 25 and 30 per cent. of the total, but occupying only a small amount of tonnage. In respect to the shipping trade from the United Kingdom to the United States, the most prominent articles are tin-plates, cement and chemicals but none of these can in any way bear comparison with the principal articles of exports of American produce. The yearly import of tin-plates amounted in the last three years to 530 million pounds, corresponding to about 160,000 register-tons, while cement was represented by 387 million pounds, or nearly 120,000 register-tons. As to chemicals, only the value is given in the official American tables, but from the English statistics we learn that the average export of bleaching materials from the United Kingdom to the United States amounted to

¹ The quantity cannot be given according to American statistics because in these different units are employed for different kinds of wood products, while for some kinds only the value is given.

41,700 tons (of 2,240 pounds), equal to about 28,000 register-tons.

The development of the principal articles of export to the United Kingdom since 1871 will be seen by the following figures: Of corn (maize) the exportation to the United Kingdom during the year ending June 30, 1871, was only 5.9 millions of bushels, but rose in the next following year to 25.8 millions and further to 65.9 and 64.5 millions in the years 1878 and 1879. From this large amount it has since gradually declined, and in 1895 the exportation was only 15.4 million bushels. In 1871 and 1872 about 20 million bushels of wheat was exported to the United Kingdom, and in the year 1881 a maximum of 82.55 millions was reached. Since then some diminution has taken place, and during the three years 1889-1891 the export was only about 33.2 millions on the average. In the following years, again, the export increased very considerably, the average for the four years 1892-1895 being more than 60 millions of bushels, with a maximum of 72.5 million in 1893. The exportation of wheat flour has, after a drop from 1,227,000 barrels in 1871 to an average of 430,000 barrels in 1872 and 1873, shown an almost continuous and very considerable increase until eight millions of barrels was reached in 1888. In the last four years it ranged between 8.8 millions in 1895 and 10.36 millions in 1893. The export of breadstuffs in general expanded enormously between the years 1870 and 1880 owing to the increase of the production and to the great reduction in the cost of transportation from the interior to the coast and thence to Europe. The largest export to the United Kingdom occurred in the years 1879-80 and 1880-1. In 1891-2 the total export of wheat was higher than in those years, but not the export to Great Britain and Ireland.

Another great article of export, which increased enormously both during the period 1870-1880, and even more during the last few years, is mineral oils, the export of which to the United Kingdom has been as follows:

Year ending June 30					Mineral oils, refined or manufactured
1871	-	-	-	-	19,119,000 gallons
1880	-	-	-	-	58,808,000 "
1890	-	-	-	-	89,033,000 "
1895	-	-	-	-	307,617,000 "

The increase in the last three years has been enormous, the export being in 1892 120.5 million, in 1893 206.9 million, and in 1894 and 1895 more than 300 million gallons.

For the purpose of studying the development of the general shipping trade between the United States and the United Kingdom it will be most convenient to use the statistics of the English Board of Trade, as the American measurement of tonnage has undergone several alterations which make comparison difficult,¹ and also because the English sources go back to an earlier date than the American sources at my disposal. The progress of this shipping, as well as the part taken by steam vessels and sailing vessels, is illustrated by the following figures:

TONNAGE IN THOUSANDS OF BRITISH REGISTERED TONS OF VESSELS ENTERED AND CLEARED IN THE TRADE BETWEEN THE UNITED KINGDOM AND THE ATLANTIC PORTS OF THE UNITED STATES.²

Year	Steam Vessels		Sailing Vessels		Total	
	Entered	Cleared	Entered	Cleared	Entered	Cleared
1824	"	"	"	"	198.5	?
1834 ³	"	"	"	"	299.2	354.7
1841	"	"	"	"	415.9	473.0
1850	"	"	"	"	859.4	1155.3
1853	123.6	137.3	964.4	1404.0	1088.0	1541.3
1860	215.6	276.7	1523.5	1527.3	1739.1	1804.0
1870	834.7	883.1	854.0	1028.6	1688.7	1911.7
1880	2912.0	2881.4	2119.2	1779.2	5031.2	4660.6
1890	4629.2	3251.7	499.4	272.0	5128.6	3523.7
1895	4612.6	3915.8	353.6	385.3	4966.2	4301.1

¹ Compare *Statistique Internationale*, vol. iv. pp. 129, 130.

² Including, for the years 1824-1860, also the Pacific ports. The navigation between these and the United Kingdom was, however, very small before 1861.

³ McCulloch's *Statistical Account of the British Empire* (first edition), vol. ii. p. 196.

In the seventeen years 1824–1841 the tonnage was more than doubled, and the like progress was made during the decennial period 1841–1850. The next decade, 1851–1860, was on the whole not characterized by any marked progress, except in its last year, when the entrances from the United States suddenly rose from 1,188,400 to 1,739,100 tons, and the clearances from 1,463,900 to 1,804,000 tons; the chief cause being a sudden rise in the importation of wheat and corn into the United Kingdom.¹ The increase continued in 1861, but was very soon checked in the succeeding years by the effects of the Civil War, as is illustrated by the following figures :

TONNAGE ENTERED AND CLEARED FROM THE UNITED STATES TO
THE UNITED KINGDOM.

Year		Entered	Cleared
1861	- -	1,987,800 tons	1,725,800 tons
1862	- - -	1,589,000 "	1,462,400 "
1863	- -	1,206,200 "	1,277,500 "
1864	- - -	998,400 "	1,140,700 "
1865	- -	727,800 "	1,164,600 "
1866	- - -	1,397,300 "	1,536,800 "
1870	- -	1,688,700 "	1,911,700 "

While the progress during the twenty years from 1850 to 1870 cannot be described as great, considering the increase of the population and of the trade in general, we observe, on the other hand, an immense development in the next decade. The tonnage entered from the Atlantic ports increased in the years 1870–1880 from one million and two-thirds to more than five millions of tons, or three times the figures of 1870, and the outgoing increased in the same period from 1,911,700 tons to 4,661,000 tons. The chief cause of this enormous development was the increase of the import of cereals from the United States. The importation of wheat from the Atlantic ports rose in the years 1870–1880 from 11.4 to 37.7 million hundredweights, while the import of maize from a trifling quantity (23,000 hun-

¹ The importation from the United States into the United Kingdom was in 1860: 1,499,400 quarters of wheat and 430,300 quarters of corn, as against 36,900 and 3,400 quarters in 1859.

dredweights) in 1870 rose to 31 million hundredweights in 1880. In the same period there was an increase in the petroleum trade from 6,859,000 to 38,793,000 gallons. It should, however, be observed that 1880 was a maximum year in the trade between the two countries. The total tonnage entered and cleared amounted to a little over ten million tons, including the trade with the Pacific coast (without that, 9,692,000 tons). Also in the two contiguous years 1879 and 1881 the shipping trade stood upon an almost equally high level. But afterwards there was a somewhat marked decrease; viz., from ten millions in 1880 to 7.5 millions in 1888. In that year Great Britain's import of wheat from the Atlantic ports of the United States fell to 20.5 million hundredweights, as against 37.7 millions in the preceding year, while the import from the southern ports of Russia, owing to an abundant harvest, rose from 4.8 to 21 million hundredweights. In later years, however, the tide has again turned, and while we find for the year 1890 figures which nearly reached the high level of 1880, this level was more or less exceeded in each of the subsequent years until 1895, the maximum being in 1892, when the total tonnage of vessels entered and cleared in this trade was more than 11 millions of tons, chiefly owing to a very large import of wheat, corn, and cattle into the United Kingdom. The exact figures since 1888 are as follows (thousands omitted) :

TONNAGE ENTERED AND CLEARED AT PORTS OF GREAT BRITAIN AND IRELAND IN THE TRADE WITH PORTS IN THE UNITED STATES OF AMERICA.

Years	Atlantic Ports	Pacific Ports	Total U. S.	Entered in U. K.	Cleared from U. K.
1888	7,030.3	549.8	7,580.0	4,418.5	3,161.5
1889	8,142.2	640.6	8,782.8	5,215.7	3,567.1
1890	8,652.3	677.4	9,329.7	5,549.8	3,779.9
1891	9,292.6	616.4	9,909.0	5,255.7	4,653.3
1892	10,636.9	549.9	11,186.9	6,138.4	5,048.5
1893	9,153.9	733.1	9,886.9	5,305.7	4,581.2
1894	9,982.2	560.3	10,542.5	5,526.9	5,015.6
1895	9,267.3	812.5	10,079.8	5,444.0	4,635.8

We subjoin in this connection a short notice concerning the shipping trade between the Pacific ports of the United States and the United Kingdom. This trade has, on the whole, developed very steadily and in a striking manner. In the year 1861, when it for the first time was specified in the tables of the Board of Trade, the entrances and clearances together numbered 75,000 register-tons. But in this year the shipping was exceptionally large, the export of wheat and of wheat meal and flour, which in the foregoing five years had been nil, suddenly rising to 867,600 hundredweights. During the five years 1861-1865 the tonnage entered and cleared was on the average 55,100 tons, in the next quinquennial period 146,300 tons, 1876-1880 370,300 tons, and 1891-1895 654,400 tons.

In the table which we have given on page 9 will be found some information on the proportion of steam and sailing vessels in the trade here treated. It will be seen that the tonnage of sailing vessels was greater than that of steam up to 1870, and from returns not included in the table it appears that this lasted even until 1878. But from 1879 the supremacy of the steam vessels was fully established and the importance of sailing vessels has since that year been fast declining, except in the trade with the ports on the Pacific.

The infancy of steam navigation as employed in the ocean trade dates as far back as 1819. In that year the American steamship *Savannah*, of 300 tons, left the port in Georgia of the same name making the passage to Liverpool in thirty-one days, partly steaming and partly sailing.¹ Still the success of the *Savannah* was considered so questionable, that men of science for several years afterwards tried to prove that the navigation of the Atlantic by steam power was no better than the dream of a visionary.² We take pleasure in quoting from Mr. Lindsay³ the following passage

¹ LINDSAY, *History of Merchant Shipping*, vol. iv. p. 168; and *Encyclopædia Britannica* (eighth edition), vol. xx. p. 639.

² For further details see LINDSAY, vol. iv. pp. 180 *et seq.*

³ Before 1838 only three steam vessels are reported as having crossed the Atlantic, namely, (1) the *Savannah*, as above mentioned, in 1819, (2) the *Curacao*, which in the year 1829 made several successful voyages between Holland and the Dutch West

from a lecture delivered in December 1835 by Dr. Lardner at Liverpool: "As to the project, however, which was announced in the newspapers, of making the voyage directly from New York to Liverpool, it was, he had no hesitation in saying, perfectly chimerical, and they might as well talk of making a voyage from New York or Liverpool to the moon."

From 1838 we are in possession of official returns of the steam navigation between Great Britain and the United States in the Report from the Select Committee on British Shipping, 1844, where also are to be found many other interesting facts relating to the early development of steam navigation. In this Report we find that five steamships entered at ports in Great Britain from the United States in 1838, nine in 1839, and twenty-two in 1840. The number of steamships cleared in that trade was nearly the same. All these ships were British. In 1840 the regular mail service of the Cunard Company began with four wooden steamships running between Liverpool, Halifax and Boston. In 1841-1843 the vessels engaged in this line were reported as entered from British possessions in North America, and the aggregate number of steam vessels entered from those ports rose from nil in 1840 to 22 in 1841, and 63 in 1842, while those reported as entered from the United States in the same years declined from 22 to 5 and 2 respectively. Thus it will be right to add together these two series of numbers, and we find then the following figures showing the increase of this trade in the first years of the transatlantic steam navigation.

1837	1838	1839	1840	1841	1842
0	5	9	22	27	65

For the years 1842-1852 the documents at my disposal do not give full information about the progress of steam navigation between the United States and Great Britain. But for the year 1853 the following figures are given in the official statistical tables of the Board of Trade:

Indies, and (3) the Royal William, which sailed from Quebec to Gravesend in the year 1833.—See LINDSAY.

Steam vessels	Entered in 1853	Cleared in 1853
British	79 of 86,354 tons	81 of 87,763 tons
American	26 " 37,240 "	37 " 49,547 "
Other foreign
Total	105 123,594 "	118 137,310 "

From the British North American Colonies arrived in the same year four British steamers of 1791 tons, and departed three of 1602 tons. From these statements it will be seen that the total number of steam vessels entered into Great Britain and Ireland from America increased during the year 1842–1853 from 65 to 105, while the tonnage probably increased in a still greater degree.

In 1847 an American line of steamers was established between New York and Bremen, calling at Southampton, and in 1850 four large American steamers of the Collins line started in competition against the Cunard vessels. Before this line was established, the Cunard steamers were receiving £7 10s. per ton, freight, which was so much of a monopoly rate that in two years after the Collins line had commenced the rate of freight fell to £4 per ton.¹ These American vessels were splendid ships, and made the passage between New York and Liverpool in a considerably shorter time² than any vessel previously constructed; but owing to the great general expenditure (large consumption of coal, high wages, etc.) and to several fatal losses the undertaking was relinquished in 1858. Meanwhile the steam navigation by British vessels between the two continents constantly increased. Apart from the Cunard line there were several other undertakings in this direction started in the early fifties, amongst others the well-known Inman line, which commenced in 1850 under the name of the Liverpool, New York, and Philadelphia Steam Ship Company. Later on commenced the German lines of the Hamburg and American Steam Packet Company and of the North German Lloyds. In the year 1850

¹ LINDSAY: *History of Merchant Shipping*, vol. iv. p. 214.

² During the first half of 1852 the Collins line made the passage from Liverpool to New York on an average of 11 days, 22 hours, and the Cunard line on an average of 12 days, 13 hours. The passage in the opposite direction was in May 1852 performed in 9 days, 17 hours, and 12 minutes.—LINDSAY, pp. 218 and 215.

one Hamburg steamer made two voyages from New York to Hamburg and one British steamer one voyage,¹ but during the years 1851–1855 no such voyage was performed, while in 1856 two ships made 6 voyages, in 1857 two made 10 voyages, and in 1858 four made 15; in 1859 and in 1860 five ships made 21 and 20 voyages respectively. From Bremen in 1853 and 1854 two steamers made voyages to New York, but were later employed by the British government for transport of troops. The North German Lloyds Steamship Company, which is now of so great importance, was formed in 1857. Their first ocean steamer was built in Greenock (Scotland), and departed in 1858 from the Weser to New York. The steam vessels going from the Hanse Towns called in those years at Southampton, as is still the case.

The development of British, American, and German steam navigation between the United States and the United Kingdom from 1853 to 1862, as here described, may be seen in detail in the following extract from the table of the British Board of Trade:

STEAM TONNAGE ENTERED AND CLEARED AT PORTS IN THE UNITED KINGDOM IN THE TRADE WITH THE UNITED STATES.

Years	British		American		Other Foreign		Total	
	Entered	Cleared	Entered	Cleared	Entered	Cleared	Entered	Cleared
1853	86.4	87.8	37.2	49.5	"	"	123.6	137.3
1854	89.3	83.5	33.0	45.6	"	"	122.2	129.1
1855	31.7	29.8	40.9	49.5	"	"	72.6	79.3
1856	93.5	107.0	39.3	50.9	"	4.4	132.8	162.3
1857	149.2	153.5	31.0	46.8	"	8.5	180.2	208.8
1858	136.7	139.1	2.2	20.2	"	23.2	139.0	182.4
1859	162.7	184.0	1.4	2.9	"	50.5	164.1	237.4
1860	212.6	223.2	"	6.0	3.0	47.5	215.6	276.7
1861	209.5	220.7	2.1	10.2	3.6	52.6	215.1	283.6
1862	227.5	224.5	0.6	"	5.3	67.5	233.4	292.0

It will be observed that the British steam navigation increased each year, excepting only 1855, when a great reduction suddenly took place, perhaps owing to the need of vessels for the transportation of troops during the Crimean war. In 1861 there was a slight decrease. While, as we have seen, the tonnage of British

¹ *Hamburgs Handel und Schifffahrt*, 1854.

and other steam vessels trading between the United States and United Kingdom increased during the nine years 1853-1862 from 260,900 tons to 525,400 tons entered and cleared, the tonnage of the sailing vessels engaged in the same trade increased only from 2,368,400 tons to 2,526,000 tons, having in the year 1861 reached a maximum of 3,214,900 tons. After 1862 the increase of the steam tonnage went on by leaps and bounds, the entrances and clearances amounting in 1866 to 1,278,800 tons, in 1870 to 1,717,700 tons, and in 1880 even to 5,793,400 tons. As to the sailing vessels, mostly American, the years 1861-1865 were extremely disastrous, as will be seen from the following figures :

SAILING VESSELS ENTERED AND CLEARED AT THE PORTS IN THE UNITED KINGDOM FROM AND TO THE UNITED STATES.

Years		Entered	Cleared	Total
1861	- -	1,772,700 tons	1,442,200 tons	3,214,900 tons
1862	- -	1,355,600 "	1,170,400 "	2,526,000 "
1863	- -	872,150 "	868,450 "	1,740,600 "
1864	- -	651,600 "	722,300 "	1,373,900 "
1865	- -	338,300 "	685,200 "	1,023,500 "

In 1866 the tonnage of sailing vessels rose again to 798,800 tons entered and 856,500 tons cleared, and in 1870 to 992,200 and 1,097,600 tons respectively, including Pacific ports, and 854,000 and 1,028,600, excluding Pacific ports. The percentage of the steamers in the total tonnage entered and cleared in this trade, being in 1852 only 10, and in 1861 not more than 13, rose during the four years 1861-1865 to 46 per cent., a point which was maintained during the following years of extraordinary development after the termination of the Civil War and particularly after 1870. During this rapid development, steamers and sailing vessels shared, on the whole, equally in the progress until the year 1878, which may be considered as the great turning point in this respect. In some of the intermediate years, when a sudden expansion of the trade required more tonnage than usual, these extraordinary requirements were met chiefly by the sailing vessels, the tonnage of which in such years more than

equaled that of the steam vessels. Thus we find that the tonnage of the sailing vessels entered into the United Kingdom from the Atlantic ports suddenly swelled in 1876 to 2,213,300 tons, from 1,513,800 tons in the preceding year, while the steam tonnage gained only by a trifling increase, viz., from 1,414,300 to 1,529,300 tons. A similar occurrence is met with in 1874, but in 1878 the steamers took the larger share, their increase being more than half a million of tons, while the sailing vessels increased their tonnage by less than 290,000 tons. This year, however, marks, as we have already said, the turning point. The tonnage of the sailing vessels trading between the United Kingdom and the Atlantic ports of the States has, almost without a single interruption, gone backwards in every year from 1878 to 1895, while the steam tonnage shows a continual increase. The result is that while the sailing vessels in 1878 constituted more than 52 per cent. of the total entrances, their relative proportion was successively reduced to 34 per cent. in 1881, 20–21 per cent. in each of the years 1883–1885, and about 7 per cent. in 1895.

The gradual substitution of steam for sail in the trade between America and England has been accompanied by another characteristic feature in the development of the same trade, namely, the decay of the American shipping, in sharp contrast with the increase of the British and other foreign shipping. In the early stages of the British-American trade, the British flag was not at all so prominent as it has been in later years. On the contrary the Americans occupied the greater part of the trade. Thus in the year 1824 there arrived at ports in Great Britain and Ireland only 157 British vessels from the United States, as against 460 foreign, that is to say almost exclusively American, vessels, and respecting the tonnage there was even a greater predominance of the foreign flags, which then covered 153,500 tons, as against 45,000 tons of British vessels. In 1834 there entered and cleared 228,412 British tons, as against 425,442 American and other foreign tons,¹ of

¹ McCulloch's *Statistical Account of the British Empire*.

which the entrances represented 94,658 and 204,529 tons respectively.

In 1841 there entered 267 British vessels of 121,800 tons, while the foreign vessels numbered 524, measuring 294,200 tons. In 1850 there entered in the same trade, according to the statistics of the English Board of Trade, 470 British vessels of 293,500 tons, and 706 foreign vessels of 565,900 tons, while according to the American statistics the figures for the year ending June 30, 1850, stand thus :

	American vessels	British vessels	Other foreign vessels	Total
Tonnage cleared to the United Kingdom, - - - -	466,300	296,400	12,900	775,700
Tonnage entered from the United Kingdom, - - - -	518,800	532,800	21,300	1,072,800

In 1861 there entered 943 British vessels of 678,000 tons and 1588 foreign vessels of 1,309,700 tons. In the latter number there was 1259 American vessels of 1,175,900 tons.

Of the whole trade between the United States and the United Kingdom the American vessels thus constituted more than a half and the British vessels only one-third. But after that year the American tonnage employed in this trade fell off rapidly, partly owing to the vicissitudes of the Civil War, partly because the competition of steam against sailing vessels proved particularly disadvantageous to the American sailing vessels on account of the high rate of seamen's wages. It was probably this last reason which chiefly hindered the American sailing vessels from participating in the great development of the trade between the United States and the United Kingdom, which, as we have shown, took place in the years 1870-1880, and which was much to the advantage of the sailing vessels of other nations, amongst others the Norwegians and the Italians.

Later on steam navigation took a larger and larger share in the same trade while the part which the American steam vessels took was very inconsiderable until a new American line was formed in 1892 by the purchase of the Inman liners. The percentage falling to American tonnage of the total tonnage

entered and cleared at British ports was in 1861 13.1, in 1876 3.0, in 1888 0.4, in 1892 0.3, and in 1895 0.8.

In order to illustrate in a more detailed way the very remarkable development, which took place in the shipping trade between the United States and the United Kingdom during the Civil War, in the immediately following years, and up to the present time, we give in the subjoined condensed table the figures respecting the navigation of steam vessels and of sailing vessels separately, each divided into three categories (1) British vessels, (2) American vessels, and (3) other foreign vessels in the years 1861-1895:

VESSELS ENTERED AND CLEARED AT PORTS IN THE UNITED KINGDOM FROM AND TO THE ATLANTIC PORTS OF THE UNITED STATES.

Year	BRITISH VESSELS		AMERICAN VESSELS		OTHER FOREIGN VESSELS		TOTAL	
	No.	Tons (Thousands)	No.	Tons (Thousands)	No.	Tons (Thousands)	No.	Tons (Thousands)
STEAM.								
1861	307	430.5	8	12.3	37	56.2	352	499.0
1865	520	786.1	1	0.4	45	82.4	566	868.9
1866	708	1128.8	27	25.6	67	124.4	802	1278.8
1870	971	1607.9	1	2.0	59	107.9	1031	1717.8
1880	3111	5429.8	66	127.7	170	235.8	3347	5793.4
1890	3460	7399.8	40	88.7	233	392.4	3733	7880.9
1895	2727	7199.8	119	542.2	133	266.0	2979	8008.1
SAIL.								
1861	1227	713.1	2323	2215.0	525	211.4	4075	3159.5
1865	574	442.5	431	478.8	139	72.8	1144	993.7
1866	1059	707.8	659	718.0	407	189.5	2125	1615.3
1870	1387	951.2	750	749.8	406	181.5	2543	1882.5
1880	2375	1932.7	363	403.4	2791	1562.4	5529	3898.5
1890	288	286.6	45	76.1	584	408.7	917	771.4
1895	403	684.6	26	30.4	629	544.2	1058	1259.2

This table is very instructive. It exhibits in a striking way:

- (1) The destructive influence of the Civil War on the sailing vessels engaged in the trade here treated, while the prog-

ress of steam navigation does not seem to have been hampered, but perhaps even encouraged ;

- (2) How the American sailing vessels, for obvious reasons, suffered more than British and other foreign sailing vessels, with the result that their proportion in the total tonnage of sailing vessels fell from nearly 71 per cent. in 1861 to 48 per cent. in 1865 ;
- (3) How in the years immediately following the war and until 1870 the navigation of sailing vessels as well as that of steam vessels made fair progress, wherein, however, the American vessels took a smaller share than others, so that their proportion in the total navigation of sailing vessels during the years 1865 to 1870 fell from 48 to 40 per cent ;
- (4) That there was an enormous progress between the years 1870 and 1880 in the navigation of both steam vessels and of sailing vessels, of which, however, the first named gained most ;
- (5) That in this period the tonnage of American sailing vessels entered and cleared in this trade fell, while the tonnage of other sailing vessels increased enormously, with the result that the American percentage fell from 40 to about 10 per cent ;
- (6) That since 1880 there has been a considerable, though not an extraordinary, increase of the steam tonnage engaged in the same trade, accompanied by a great falling off of sailing vessels of all nations ;
- (7) That no other nation has gained more than the British, reaping the fruits of early, intelligent and persistent efforts for the development of ocean steam navigation ;
- (8) That, on the contrary, no other nation has lost more in this shipping trade than the American.

As to the decadence of the American shipping in the ocean trade, it is clearly a consequence arising from both general and particular causes. If we compare the situation in 1861 with that in 1895 it is obvious that the decline of the American shipping

from one essential point of view is the general result of the hopeless struggle of sailing vessels against steam. This point may be briefly summarized thus: At the same time as the steam navigation increased from one-half to eight millions of tons, the tonnage of sailing vessels decreased from three millions of tons (chiefly American) to about one million (chiefly foreign).

But, it may be asked, why has American ocean steam navigation made, on the whole, so little progress except during the last few years? If I may be allowed to offer an opinion on this question, I would say that no other particular cause has contributed so much to this unsatisfactory result as the clause in the American navigation laws denying American registry and the American flag to vessels engaged in foreign trade and owned by American citizens, unless built in the United States. This exceptional obstacle to the free purchase of ships, dating from the end of the last century, perhaps, did not make itself felt as long as the wooden sailing ships constituted the larger part of the merchant vessels; but as soon as steam vessels of iron and steel began to compete successfully, even with the best types of sailing vessels, the situation changed altogether. The iron and steel industry of the United Kingdom was in the sixties very much superior to that of any other country, and while in later years several nations, particularly the Americans and the Germans, in this respect compete with the United Kingdom, the ship building trade, and in particular that for ocean navigation, is nowhere else so highly developed. Thus every other seafaring nation except the American has found it to be a great advantage for the development of their steam navigation to order steamships from British yards, where they could get them constructed cheaply and quickly. It has also appeared that a considerable increase of the national shipbuilding industry has taken place at the same time that purchases on a large scale of foreign steamships have been made.

I shall, however, on this occasion not enter more deeply into these general considerations on the question of competition, but, in concluding this article, only emphasize a consideration of a

different order, pointing at two great benefits which have been attained by the development of the shipping trade between the United States and the United Kingdom, viz., (1) the great reduction in the rates of freights, and (2) the great improvement in the speed and comfort of the passage. These two circumstances have been of the highest importance for the development of civilization and humanity, having brought into a closer connection those who were formerly widely separated, the United States with the United Kingdom, America with Europe, brethren with brethren.

ANDERS NICOLAI KIÆR.

CHRISTIANIA, NORWAY,
October 1896.